

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optical power calibration method for calibrating a writing power of an optical storage carrier player, the optical storage carrier player comprising an access device for writing data onto an optical storage carrier, the optical storage carrier comprising:

a first power calibration area located close to a center of the storage carrier;

a second power calibration area located close to an outer edge of the storage carrier; and

a data storage area located between the first power calibration area and the second power calibration area;

the optical power calibration method comprising steps of:

providing data to be written on the data storage area;

determining a writing location of the data on the data storage area;

performing an optical power calibration process in the first power calibration area when the writing location being within a predetermined portion of the data storage area; and

performing an optical power calibration process in the second power calibration area when the writing location being out of the predetermined portion.

2. (Original) The optical power calibration method of claim 1, wherein the data storage area is divided into an inner area and an outer area, and the predetermined portion is the inner area, when the writing location is located within the inner area, performing the optical power calibration process in the first power calibration area, and when the writing location is located in the outer area, performing the optical power calibration process in the second power calibration area.

3. (Original) The optical power calibration method of claim 1 wherein the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner.

4. (Original) The optical power calibration method of claim 1 wherein the carrier player controls rotation of the optical storage carrier in a constant angular velocity (CAV) manner.

5. (Original) The optical power calibration method of claim 1 wherein the data storage area comprises two data segments, and the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner when the access device writing data onto one data segment, and each data segment having a different linear velocity.

6. (Withdrawn) The optical power calibration method of claim 5 wherein the data storage area comprises N data segments, and the optical power calibration method further comprises:

performing the optical power calibration process in the first power calibration area when the writing location is in an inner M ($M < N$) data segments;

performing the optical power calibration process in the second power calibration area when the writing location is in an outer N-M data segments.

7. (Original) The optical power calibration method of claim 1 wherein the optical storage carrier further comprises a last possible lead-out area located close to the outer edge of the optical storage carrier for storing ending information about data written on the optical storage carrier, and the second power calibration area is located within the last possible lead-out area.